

would be driven at 15,000 RPM and the ring gear would be driven at 8,333 RPM for a geometry ratio of 3.0. In an arrangement in which the fan is coupled to the ring gear and the sun gear is coupled to the low pressure compressor, like the arrangement shown in FIG. 2, the following speed ratios would be provided: LPT:fan=1.2, LPC:LPT=1.5, and LPC:fan=1.8.

[0079] The lower, darker shaded bars relate to FIGS. 11A-11C. The carrier and ring gear rotate in the opposite direction than depicted in FIG. 9A-9C.

[0080] Although an example embodiment has been disclosed, a worker of ordinary skill in this art would recognize that certain modifications would come within the scope of the claims. For that reason, the following claims should be studied to determine their true scope and content.

1. A gas turbine engine comprising:

first and second shafts rotatable about a common axis and rotationally decoupled from one another, the first and second shafts respectively provide low and high spools; first and second turbine sections respectively mounted on the first and second shafts, first and second compressor sections respectively driven through the first and second shafts, the first compressor and turbine sections are low pressure compressor and turbine sections, and the second compressor and turbine sections are high pressure compressor and turbine sections;

a fan arranged fluidly upstream from a core nacelle; and an epicyclic gear train and a speed change device interconnected to one another and coupling the first shaft to the fan such that the fan is driven through the first shaft by both the epicyclic gear train and the speed change device, wherein the fan is configured to rotate at a different speed than the low pressure compressor.

2. (canceled)

3. The gas turbine engine according to claim 1, wherein the speed change device is configured to provide a speed reduction.

4. The gas turbine engine according to claim 3, wherein the epicyclic gear train is arranged between the first shaft and the speed change device.

5. The gas turbine engine according to claim 3, wherein the speed change device is arranged between the first shaft and the epicyclic gear train.

6. The gas turbine engine according to claim 3, wherein the epicyclic gear train is a differential gear train that includes a sun gear, planetary gears arranged about and intermeshing with the sun gear, and a ring gear circumscribing and intermeshing with the planetary gears.

7. The gas turbine engine according to claim 6, wherein the planetary gears are supported by a carrier, the carrier is configured to receive rotational input from one of the first shaft and the speed change device.

8. The gas turbine engine according to claim 6, wherein the speed change device is configured to receive rotational input from the sun gear.

9. The gas turbine engine according to claim 3, wherein the first compressor section is coupled to the epicyclic gear train.

10. The gas turbine engine according to claim 9, comprising an inducer coupled to the speed change device.

11.-21. (canceled)

22. The gas turbine engine according to claim 1, wherein rotational drive from the first shaft is provided sequentially through the epicyclic gear train and the speed change device to the fan.

23. The gas turbine engine according to claim 1, wherein rotational drive from the first shaft is provided sequentially through the speed change device and the epicyclic gear trains to the fan.

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